

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1. (Original) A sensor chip for a sensor guide wire assembly for intravascular measurements of at least one physiological variable in a living body, which sensor chip is adapted to be mounted on a core wire and has a first end portion, a first side of which is provided with a pressure sensitive device, wherein the sensor chip comprises  
a mounting base, which, at a second end of the sensor chip, extends downwards and is adapted for mounting to the core wire such that a clearance is formed between the first end portion and the core wire.
2. (Original) A sensor chip according to claim 1, wherein the mounting base is an integrated part of the sensor chip.
3. (Original) A sensor chip according to claim 1, wherein the mounting base is attached to the sensor chip.
4. (Original) A sensor chip according to claim 1, wherein the shape of an underside of the mounting base is adapted to the shape of the core wire.
5. (Original) A sensor chip according to claim 1, wherein the sensor chip further comprises a protective structure.
6. (Original) A sensor chip according to claim 5, wherein the protective structure is in the form of two extra elements, which are arranged such that the sensor chip has a H- or U-shaped cross-section.
7. (Original) A sensor chip according to claim 5, wherein the protective structure is an integrated part of the sensor chip.

8. (Original) A sensor chip according to claim 5, wherein the protective structure is attached to the sensor chip.
9. (Original) A sensor chip according to claim 1, wherein the sensor chip comprises a piezoresistive pressure transducer.
10. (Original) A sensor guide wire assembly for intravascular measurements of at least one physiological variable in a living body, comprising  
a core wire and a sensor element having a first end portion, a first side of which is provided with a pressure sensitive device, wherein the sensor element has a mounting base, which, at a second end of the sensor element, extends downwards and is adapted for mounting to the core wire such that a clearance is formed between the first end portion and the core wire.
11. (Original) A sensor guide wire assembly according to claim 10, wherein the mounting base is an integrated part of the sensor element.
12. (Original) A sensor guide wire assembly according to claim 10, wherein the mounting base is attached to the sensor element.
13. (Original) A sensor guide wire assembly according to claim 10, wherein the shape of an underside of the mounting base is adapted to the shape of the core wire.
14. (Original) A sensor guide wire assembly according to claim 10, wherein the sensor element further comprises a protective structure .
15. (Original) A sensor guide wire assembly according to claim 14, wherein the protective structure is in the form of two extra elements, which are arranged such that the sensor element has a H- or U-shaped cross-section.

16. (Original) A sensor guide wire assembly according to claim 14, wherein the protective structure is an integrated part of the sensor element.

17. (Original) A sensor guide wire assembly according to claim 14, wherein the protective structure is attached to the sensor element.

18. (Original) A sensor guide wire assembly according to claim 10, wherein the sensor element comprises a piezoresistive pressure transducer.

19. to 21. Cancelled.